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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,404	01/31/2002	Mikel R. Fulk	DP-305004	6073

7590

11/07/2002

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EXAMINER

GUSHI, ROSS N

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/059,404	Applicant(s) FULK ET AL.	
	Examiner Ross N. Gushi	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The method as in claim 1, where the "lead element is a pad," was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification merely states that the lead may take the form of a pad, but no explanation or illustration whatsoever is provided regarding the lead being in the form of a "pad." The limitation is given no weight.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamuro in view of Capp et al. ("Capp"). Yamamuro discloses a wire bondable connector assembly comprising: at least one lead element 2 including a

lead portion and a carrier strip 18 portion; a first coining area (see attachment) formed in said lead portion of said lead element; and a connector housing formed around said lead portion, said connector housing including said fence element (see attachment) covering the said first coining area such that said carrier strip portion can be separated from said lead portion without affecting the stability of said lead portion.

Yamamuro does not discuss the second coining area where the leads are separated from the carrier strip 18. , ,

Capp discloses terminals attached to a carrier strip 24 at coined area 19 formed in said lead element and positioned between said lead portion and said carrier strip portion. At the time of the invention, it would have been obvious to attach the Yamamuro leads to the carrier strip at a coined area, as taught in Capp. The suggestion or motivation for doing so would have been to facilitate separation of the terminals from the carrier strip, as taught in Capp and as is well known in the art.

Per claim 2, said fence element extends to cover a portion of said second coining area. , ,

Regarding claim 3, Yamamuro does not detail the dimensions. However, at the time of the invention, workable dimensions (including that the first coining area and said second coining area be separated by at least 0.8 mm) of the would have been a matter of routine experimentation. In re Antonie, 559 F.2d 618 (CCPA 1977). Variations in the distance would have been obvious minor adjustments without patentable significance. See In re Aller, 105 USPQ 233 (CCPA 1955)(Where general conditions of

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the claim are disclosed in the prior art, it is not inventive to discover optimal or workable ranges by routine experimentation).

Per claim 4, the Yamamuro connector housing is plastic.

Per claim 5, said fence element is formed integrally with said connector housing.

Per claim 6, said connector housing is formed around said lead portion using injection molding.

Per claim 7 said lead portion further include a lead surface suitable for ultrasonic wire bonding.

Per claim 8 the assembly is capable of use in a high density wire bond connector.

Per claims 9, 10, 12, 13, 14, 15, the method of securing the leads of the assembly as in claims 1-7 would have been obvious.

Claim 11 is are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamuro in view of Capp as in claim 9 in view of Cooper et al. ("Cooper"). Yamamuro does not discuss wire bonding a wire bond to a lead surface of the lead element using ultrasonic wire bonding. Cooper discloses wire bonding a wire bond 8 to a lead surface 18 of the lead element using ultrasonic wire bonding. At the time of the invention, it would have been obvious bond a wire a lead surface of the lead element using ultrasonic wire bonding as taught in Cooper. The suggestion or motivation for doing so would have been to facilitate connection of the terminal to a printed circuit board as taught in Cooper.

### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (703) 306-4508. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at (703) 308-2319. The phone number for the Group's facsimile is (703) 308-7766

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